

ABSTRACT OF THE DISCLOSURE

The invention provides a solid-state imaging device that include a pixel array where a plurality of unit pixels each including a photo diode and an insulated gate field effect transistor for detecting a photocharge are arranged, and a control circuit that controls the operation of the pixel array. The control circuit can apply a predetermined voltage to a source diffused region of the insulated gate field effect transistor and applies voltage by which a channel region becomes a conductive state to a gate electrode to bias a junction region formed of a semiconductor substrate of a first conductivity type and a semiconductor layer of a second conductivity type in a forward direction so as to accumulate a predetermined amount of the charge of a predetermined conductivity type in an accumulation region, and thereby causing the charge of a predetermined conductivity type accumulated in the accumulation region to be discharged. Accordingly, image quality deterioration caused by a residual image due to photocharge accumulated can be reduced.